

WHAT IS CLAIMED IS:

1. A cementitious slurry comprising:

a hydraulic binder;

water; and

a mineral additive including a component selected from the group consisting

of:

- i) fly ash having a predominant particle size of up to about 10 microns;
ii) aluminous material having a predominant particle size of up to about 150 microns; and
iii) both the fly ash of (i) and the aluminous material of (ii);

wherein the mineral additive is added in a quantity sufficient to provide a water reduction effect.

2. A cementitious slurry according to claim 1, wherein the fly ash comprises about 25-60% silica, about 10-30% Al_2O_3 , about 5-25% Fe_2O_3 up to about 20% CaO and up to about 5% MgO.

2. A cementitious slurry according to claim 1, wherein the fly ash comprises about 30-100 wt% based on weight of cement in the slurry.

3. A cementitious slurry according to claim 1, wherein the aluminous material is selected from the group consisting of hydrated alumina, partially hydrated alumina and unhydrated alumina.

4. A cementitious slurry according to claim 1, wherein the aluminous material comprises about 5 to 30 wt% based on weight of cement in the slurry.

5. A cementitious slurry according to claim 1, wherein the ratio of hydrated alumina to fly ash is between about 1:1 and 1:10.

6. A cementitious slurry according to claim 1, wherein the hydraulic binder is selected from the group consisting of common Portland cements, fast setting or extra fast setting cement, sulphate resisting cements, modified cements, alumina cements, high alumina cements, calcium aluminate cements and cements which contain secondary components such as fly ash, slag and the like.

7. A cementitious slurry according to claim 1, wherein the hydraulic binder is between about 10 and 50 wt% of total dry ingredients.

8. A cementitious slurry according to claim 1, wherein the cementitious slurry includes a conventional plasticiser.

9. A cementitious slurry according to claim 1, wherein the amount of conventional plasticiser is between about 0.3 to 3 wt% based on weight of the dry cement.

10. A cementitious slurry according to claim 1, wherein the cementitious slurry contains about 5 to 30 wt% of fillers.

11. A cementitious slurry according to claim 1, wherein the component is fly ash having a predominant particle size of up to about 10 microns.

12. A cementitious slurry according to claim 1, wherein the component is aluminous material having a predominant particle size of up to about 150 microns.

13. A cementitious slurry according to claim 1, wherein the component includes both the fly ash of (i) and the aluminous material of (ii).

ADD
C2

204060 "4EE0600F